APR 0 1 2005

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted to the U.S. Patent & Trademark Office in accordance with 37 CFR § 1.6(d) on the date indicated.

Name

April 1 2005
Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Choy-Pik Chiu & Robert Kay

Filing Date: November 21, 2001

Serial No: 09/990,522

Docket: 097/002

Title: TOLERIZING ALLOGRAFTS OF PLURIPOTENT STEM CELLS

Art Unit: 1636

Examiner: Quang Nguyen, Ph.D.

SECOND DECLARATION UNDER 37 CFR § 1.132
BY JOSEPH D. GOLD, Ph.D.

Commissioner for Patents
Alexandria VA 22313

Dear Sir:

I, JOSEPH GOLD, do hereby declare as follows:

I am Associate Director of Stem Cell Biology and project leader of the Cardiovascular Disease project at Geron Corporation. I have already given an expert Declaration in support of this patent application.

I understand the Examiner has now questioned whether the animal experiments described in my previous Declaration are relevant to what is disclosed in the patent application, in view of potential differences in which the cells were prepared.

We continue to refine the process by which we differentiate human embryonic stem cells into cardiomyocytes. Geron Corporation's aim is to produce cardiomyocytes as a commercial product for regenerative medicine. Improving the efficiency of differentiation brings down the projected cost of the product, which would help make cell therapy affordable by more patients having heart disease.

However, refinements in the production process does not cause a cardiomyocytes obtained by the process to change in character. Individual cardiomyocytes generated using 5-azacytidine according to this patent application for immunotolerance, or according to Xu's original patent application for cardiomyocytes (USSN 60/305,087), or according to the subsequent publication by Xu et al. (Circ Res. 91(6):501-8, 2002), or as described in my previous Declaration, or according to our most recent cardiomyocyte patent application (PCT/US2005/009081) appear to be the same.

Specifically, cells from any of these differentiation procedures undergo spontaneous contraction. They also have classic markers of cardiomyocytes, such as cardiac alpha myosin heavy chain (α-MHC), detectable by real-time PCR; and cardiac troponin I (cTnI), detectable by immunocytochemistry. No assay we have used is able to distinguish between cardiomyocytes made according to any of these methods.

I hereby declare that all statements made in this Declaration of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

4/1/05
Date

Joseph D. Gold, Ph.D.
Menlo Park, California

geron

GERON CORPORATION

230 Constitution Drive
Menlo Park, CA 94025
Telephone: 650 473-7700
Facsimile: 650 473-7750

Facsimile Transmittal Sheet

USSN 09/990,522

LAST PAGE